

REMARKS

The application includes claims 1-33 prior to entering this amendment.

The examiner rejected claims 1-33 under 35 U.S.C. § 103(a) over Billington *et al.* (U.S. Patent 7,103,760) in view of Konetski *et al.* (U.S. Patent Application Publication No. 2002/0103880).

The applicants amend claims 1, 3, 11, 14-15, 17, 19, 25, 27, and 29.

The application remains with claims 1-33 after entering this amendment.

The applicants do not add new matter and request reconsideration.

Claim Rejections Under § 103

The examiner rejected claims 1-33 under 35 U.S.C. § 103(a) over Billington in view of Konetski.

To understand the distinction between the subject matter of claims 1-33 and that found in Billington and Konetski, it is only necessary to ask the question, which device is doing the preprocessing of data for which other device? That is, is the computer or server preprocessing the data for the thin client or, in the alternative, is the thin client preprocessing the data for the computer or server. A careful reading of Billington and Konetski show that they take the conventional approach, that is, they rely on the computer/server, with its expanded resource set, to preprocess the data for the thin client. As will be further described below, the present invention, as embodied in claims 1-33, relies on the thin client preprocessing the data for the computer/server.

Each of the pending independent claims, claims 1, 11, 19, and 27, have been amended to more fully describe the details of how the thin client, in effect, preprocesses the data. That is, the claimed embodiment of the thin client is not simply a “conduit” (though it may include such a conduit, see amended claim 1) for transferring data between the thin client's pair of ports. One of these ports is a data/memory or simply data port, which selectively interfaces with a memory or data device (such as a flash drive or DVD) typically holding data comprising media content (see amended claim 1). The other port is a network port connecting to the external server. The thin client enables control to be exercised over data transfers through the data port to the server via the network port. In particular, in one mode, this control is fully automatic and involves transferring data from the memory device through the data port via the network port “responsive

to automatically detecting the memory device” through the data port (e.g., see amended claim 1; corresponding language is contained in amended claims 11, 19, and 27). Also, this data, which again is typically media content held by the memory device, is transferred “substantially unidirectionally” through the data port and via the network port to the server (e.g., see amended claim 1; corresponding language is contained in amended claims 11, 19, and 27). This clarifies that, in the claimed embodiments, it is the thin client preprocessing the data for the server, and not the other way around.

Before turning to the cited references, it will be noted that the claim language added in this Amendment finds support in applicants’ original specification. Regarding amended claim 1, the data/memory port (104, Fig. 2) may “selectively” interface with a memory device “holding data comprising media content.”¹ Between the thin client’s data port (104) and network port (106) may be a “data conduit” enabling data transfer therebetween.² A controller may be provided controlling this data transfer.³ This data transfer, in one mode, is fully automatic, enabling transferring “substantially unidirectionally” data stored at the memory device through the data/memory port to the server via the network port.⁴ This data transfer, in this “fully automatic mode,” is triggered “responsive to automatically detecting the memory device through the data/memory port.”⁵ Regarding amended claims 3 and 14, “in an alternative mode,” the data is transferred substantially unidirectionally “based on user input” such that “only certain portions” of the data or media “stored at/on the memory device” is transferred through the data port to the server.⁶ Regarding amended claim 15, this alternative mode may further include “displaying titles” based on the data stored on the memory device and, based on these titles, issuing commands based on “remote user input” for “selecting the only certain portions” of data

1 E.g., applicant’s original specification, par. 0027, first sentence.

2 Supra at par. 0019, third paragraph; also note data line connecting 104 and 106 in Fig. 2.

3 E.g., see item 212 of applicant’s original Fig. 2.

4 Applicants’ original specification, par. 0008, speaks of the data being transferred “from” the data interface “to” the server. To the same effect is par. 0009; par. 0016, third sentence; and par. 0027, second sentence. See also par. 0035 which speaks of a data/memory port for “importing data into” (not from) a home network, as will be connected to the corresponding network port. The term “substantially” is used because bidirectional exchange of control signals may be used for session setup and teardown or fault and retransmission notices and the like. After the data has been initially archived, data transfer may later occur unidirectionally going the opposite way, that is, from server to the thin client; see par. 0017, last sentence.

5 Supra at par. 0016, second sentence and par. 0027, second sentence.

6 E.g., in applicants’ original specification, par. 0016, fourth sentence, it is noted that the data transmission may be “automatically initiated or manually initiated.” In the latter case, this paragraph goes on to note that the “user may control” the thin client and direct it to transmit “only certain files” to the server. This latter case is also described in par. 0031, where it is noted that the user input may be by “remote control device.”

for transferring.⁷ Apart from certain changes to claim 17 made for the sake of internal consistency, it will be noted that the remaining amendments to the claims substantially comport, in language, to one of the passages already described.

It has already been noted how, in the embodiments of each of the independent claims, the thin client exercises some form of control or, if you will, preprocesses the data, before the thin client passes data to the external computer or server. Specifically, in each of independent claims 1, 11, 19, and 27, the data within the thin client is transferred “substantially unidirectionally...through the data port...to the server” for archiving at the server’s hard disk “responsive to ...automatically detecting” the memory device “selectively” coupled or interfaced with the data port (here the terms “data” port and “data/memory” port are taken as interchangeable). In contrast, in both Billington and Konetski, the computer or server, with its superior resources, preprocesses the data for the thin client.

In reference to thin clients, Billington refers to what it calls “concurrency systems,” which “allow a plurality of users, at least one of which is...a thin client...to share the resources of one PC.”⁸ Such resources include “memory and hard disk use”...that “is leveraged, as it is shared.”⁹ Here the thin client, like any other Billington “peripheral device” 12, is viewed as “a connectivity enhancing device” that is presumably located “convenient to a user” and provides “convenient connection of other devices thereto.”¹⁰ In this manner, a “multiplicity of peripheral devices,” which may include “numerous thin clients,” may be connected to “one” powerful PC.¹¹ In other words, the Billington thin client acts like a passive hub or simple data bus that permits other devices, including other thin clients, to be linked or daisy-chained together.¹² These devices may also comprise “digital video and audio recording devices.”¹³ However, Billington does not say anything about the thin client device, as opposed to merely acting as a passive hub allowing unimpeded back-and-forth data flow, doing any data transfer control before sending data to the central computer or server. In particular, as the examiner acknowledges, Billington does not teach such data transfer control wherein, “responsive to automatically detecting the

⁷ See applicant’s original specification, par. 0028, second sentence and par. 0031, second and third sentences.

⁸ Billington, col. 13, lines 60-63.

⁹ Supra at col. 14, lines 5-6.

¹⁰ Supra at col. 10, lines 41-44 and col. 8, lines 43-54. The peripheral device, whether or not a thin client, is viewed as providing the necessary power and data communications capabilities; col. 8, lines 48-50.

¹¹ Supra at col. 5, line 67-col. 6, line 1 and also col. 14, lines 12-14.

¹² Supra at col. 4, lines 15-19; col. 10, lines 41-46; and col. 14, lines 13-14.

¹³ Supra at col. 14, lines 17-21 and 28-33.

memory device through the data/memory port,” the thin client transfers data stored at the memory device through the data/memory port to the server via the network port and archives the data in the hard disk drive of the server.¹⁴ Nor does such data transfer occur “substantially unidirectionally,” as further claimed.

To overcome this deficiency, the examiner cites Konetski. But reliance on Konetski is misplaced because in Konetski, once again we find “a computer system 100 configured to communicate with a plurality of thin media clients 110, 120 and 130” over a network 140 to “allow the [thin media] clients to avoid including redundant resources.”¹⁵ In effect, Konetski merely substitutes an external bus-type network or connection 140 for Billington's internal bus-type connection 17 (e.g., internal relative to the case 32 of Billington's peripheral device 12). In Konetski, the computer system 100 may retrieve digital content for the thin media clients.¹⁶ However, this digital content is not retrieved, as claimed, from a “memory device” that is “selectively” coupled or interfaced with the data/memory port of the thin client device. Rather, in Konetski, this digital content is from a “communications network 150” (which, relative to each thin client, is only accessible via the computer system 100) or “a local input device such as a USB device or CD-ROM” (“local,” that is, to the computer system 100, not to the thin client device).¹⁷ In other words, in Konetski's system, the media data must first pass through the computer 100 before it can reach each thin client (as opposed to being transferred “substantially unidirectionally,” as claimed, from the thin client to the server/computer). The reason for this is so that Konetski's computer can perform certain “processing functions” (or preprocessing tasks) on the digital media content before it reaches each thin client.¹⁸ Only after these preprocessing tasks are performed, is the digital media content sent to the thin media client.¹⁹ This is consistent

¹⁴ Office action dated 8/27/08, page 3, last sentence.

¹⁵ Konetski, par. 0008 and par. 0023, first sentence.

¹⁶ Supra at par. 0014, second sentence.

¹⁷ Id. See also Konetski, Fig. 1.

¹⁸ Konetski, supra at par. 0015, first sentence. These preprocessing tasks include transcoding, digital rights management, decompression, and decryption of digital media content. See par. 0015, second sentence. Par.'s 0016-0018 discuss these preprocessing tasks individually, and pars. 0019-0020 adds data buffering.

¹⁹ Note that in Konetski's Fig. 2, the step 208 just before the “End” is providing the digital media content “to a Thin Media Client.” Step 206 just prior to this is to “[p]erform a Processing Function on the Digital Media Content.”

with one of Konetski's "principal advantages" of "having the computer system perform many of the processing and storage functions of the media client."²⁰

The examiner makes the point that Konetski's computer system may retrieve content "based on a signal generated by software either at the thin media client or the computer system."²¹ In either instance, however, before the content is transferred to the thin client device, such "content" is first preprocessed by the computer system (after arriving at the computer from network 150 or from a device "local" to the computer).²² Konetski's "digital media content" does not, as claimed, originate with a memory device "selectively" coupled to or interfaced with a data/memory (or simply data) port belonging to the thin client device. Nor does Konetski say anything about the data transfer being subject to thin client "automatic" and "unidirectional" control before it reaches the computer or server. Indeed, in Konetski, it is quite the opposite, that is, the data is subject to computer control or preprocessing before it reaches the thin client.²³ Accordingly, each of the independent claims 1, 11, 19, and 27 patentably defines over the suggested combination of Billington with Konetski.

Each of the pending dependent claims 2-10, 12-18, 20-26, and 28-33, depend, directly or indirectly, on a corresponding independent claim 1, 11, 19, and 27, respectively, and hence contain every limitation of that corresponding independent claim. Thus the above remarks supporting the patentability of the independent claims apply with equal force to the dependent claims. However, even apart from their corresponding independent claims, dependent claims 3 and 14 define patentably over Billington and Konetski, since neither of these references, either individually or in combination, discloses, under selective control of the thin client or its controller, enabling, "in an alternative mode, transferring substantially unidirectionally, based on user input, only certain portions" of the media content or data stored on the memory device through the data port. Likewise, neither reference, either individually or in combination, teaches conducting such data transfer in conjunction with "displaying titles based on the data stored on the memory device and, based on the titles displayed, issuing commands...based on remote user input selecting the only certain portions," as required by dependent claim 15.

20 Konetski, par. 0029, second sentence. Note how this reminiscent of Billington's comment about memory and hard disk use being "leveraged, as it is shared," thereby ensuring the resources of the processor 14 are "more fully utilized." See Billington, col. 14, lines 5-7.

21 Office Action, page 4, first sentence. This cites Konetski, par. 0014, second sentence from end.

22 Supra at par. 0014, second sentence from beginning. See also discussion in paragraph immediately above.

23 See Konetski, col. 0015, first sentence, and also the discussion in paragraph immediately above.

CONCLUSION

For the foregoing reasons, the applicants request reconsideration and allowance of claims 1-33. The applicants encourage the examiner to call the undersigned if an interview would further prosecution.

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Respectfully submitted,

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